CONTENTS

3 FROM THE DIRECTOR
4 IN SEASON: PARNEY COTONEASTER
5 TRAVEL: GARVAN WOODLAND GARDENS
6 MY FAVORITE THINGS: SUMMER VEGETABLES
8 IN THE GARDENS
12 CALENDAR
13 KEEP YOUR GARDEN HEALTHY: BOXWOOD BLIGHT
14 BOOK REVIEW
15 ART IN THE GARDEN
18 VOLUNTEER CORNER
20 HARVEST A BOUNTY OF LATE-SEASON FLOWERS
22 PUTTING NATURE FIRST—GOING FROM THE OUTSIDE IN
24 GARDENING LEGENDS
26 EDIBLES
27 ADVANCEMENT
28 TRENDS
30 LAST LOOK

PROFESSOR AND HEAD, DEPARTMENT OF PLANT SCIENCES
Scott Senseman

DIRECTOR, UT GARDENS
Sue Hamilton

DIRECTOR, WEST TENNESSEE AGRESEARCH AND EDUCATION CENTER
Bob Hayes

DIRECTOR, PLATEAU AGRESEARCH AND EDUCATION CENTER DIRECTOR
Walt Hitch

ASSISTANT DIRECTOR
James Newburn

JACKSON RESEARCH HORTICULTURIST
Jason Reeves

JACKSON ASSISTANT HORTICULTURIST
Richard Gibson

UT EXTENSION WESTERN REGION ORNAMENTAL HORTICULTURE SPECIALIST
Carol Reese

KNOXVILLE UT GARDENS EDUCATOR
Derrick Stowell

PLANT SCIENCES UNDERGRADUATE COORDINATOR/FACULTY INSTRUCTOR
Andy Pulte

KNOXVILLE MEMBERSHIP AND VOLUNTEER COORDINATOR
Beth Willis

KNOXVILLE HORTICULTURISTS
Bobby Cook, Ben Cordes, and Alice Kimbrell

KNOXVILLE HORTICULTURIST AND PLANT COLLECTIONS MANAGER
Alexandria Smith

KNOXVILLE KITCHEN GARDEN MANAGER AND SOCIAL MEDIA COORDINATOR
Holly Jones

UT EXTENSION RESIDENTIAL AND CONSUMER HORTICULTURE SPECIALIST
Natalie Bumgarner

UT GARDENS MAGAZINE
Greetings from your State Botanical Garden!

Art and nature, two themes covered in this issue, can be quite complementary to one another. Displaying beautiful sculptures—whether of glass, wood, metal, or even plants—within a botanical garden is all the trend, and it’s one that I don’t see ending. Famed glass artist Dale Chihuly has been exhibiting his incredible large-scale creations at botanical gardens worldwide for more than a decade now. His sculptures most recently adorned the gardens at Biltmore House and Gardens in Asheville, North Carolina, where annual attendance skyrocketed as a result.

It’s now recognized that the combined elements of art and nature enhance the human experience of both, and many botanical gardens are exploring how they can complement their plant collections with special artworks to increase their attendance and membership. This trend rings true with the UT Gardens as well. In this issue, you’ll find James Newburn’s article detailing the art that’s being integrated in our three UT Gardens sites across the state. You’ll also want to read UT environmental psychologist Mark Fly’s article on the positive benefits of being in nature. Your home garden or the UT Gardens is the perfect place to do so.

Finally, I want to take the opportunity to thank all of you who so generously give of your time and money in support of the UT Gardens. As you can imagine, it takes a lot of people and financial support to keep a public garden operating. I appreciate and thank you for your continued support as a friend, sponsor, volunteer, and advocate of the Gardens. You help the Gardens grow!

I look forward to seeing you in the Gardens!

Sue Hamilton, PhD
Director, UT Gardens
Don’t overlook this amazing winter-interest plant this coming season: parney cotoneaster is hard to beat! The genus Cotoneaster contains at least seventy species, but unfortunately, their use is limited in much of the United States due to most species being susceptible to excessive heat, heavy soils, lace bug, mites, and fireblight, which contribute to their relatively short life in the landscape. But *C. lacteus* is truly the exception to the rule—it is virtually pest free. *Cotoneaster lacteus* (syn. *Cotoneaster parneyi*), commonly known as parney cotoneaster.

Parney cotoneaster was introduced to the US in 1930 from western China. Growing to between 6 feet and 8 feet tall and wide in 10 years, its habit is somewhat upright and spreading, with graceful arching branches. This semi-evergreen produces 2- to 3-inch clusters of small white flowers in mid-May to early June. The flowers give way to beautiful bright red berries that remain on the plant through winter, making this cotoneaster a showstopper. The dark green, deer-resistant foliage provides the perfect backdrop and contrast to the berries. Parney cotoneaster grows well in full sun to part shade and, while it is very drought tolerant, it performs best in moist, well-drained soils. The specimen along the parking lot curb near the gazebo at the UT Gardens, Jackson, flourishes beautifully with virtually no care. *C. lacteus* works well in groupings or as a mass planting and is a wonderful addition to any mixed shrub border where additional winter interest is desired.

For a plant that is resistant to drought, diseases, and insects, as well as very low maintenance, tolerant of a wide range of growing conditions, and interesting in winter, parney cotoneaster is surprisingly underused.

I encourage you to visit the UT Gardens in Jackson and Knoxville to admire parney cotoneaster at its peak at a time when many plants are taking a rest.
A visit to Garvan Woodland Gardens is more than just a walk in a pretty park, from the dynamic structures to the botanical landscapes, you’ll see inspiring sights at every turn.

Garvan Woodland Gardens was purchased in the 1920s after a timber clear-cut a few years before. Verna Cook Garvan loved this beautiful place so much that she never allowed it to be cut again. A self-taught gardener, she began to develop it as a garden and possible future home. She was intimately familiar with the land and laid out each path, marking each tree to be removed. She personally chose each new plant and selected its location. Over the next forty years, Garvan planted thousands of specimens; on over 44 landscaped acres, there are hundreds of rare shrubs, trees, camellias, magnolias, and more than 160 different types of azaleas.

Let’s take a short walk, and visit just a few places that are my favorites.

Let your first stop be what is to me the perfect centerpiece of the garden, Anthony Chapel. It’s a spot that will stop visitors in their tracks, every time. Soaring 57 feet above the forest floor, the chapel features floor-to-ceiling windows and breathtaking views of Lake Hamilton and the woodlands. An elegant blend of native wood, glass, and stone, the chapel is a peaceful sanctuary where visitors can pause for reflection.

Japanese maples and tree peonies are an introduction to the Japanese-inspired Garden of the Pine Wind. Bridge of the Full Moon, the focal point of this area of the garden, mirrors the ancient stone bridges of western China. The sphere-shaped arch or “full moon” opening reflects a time-honored building tradition. The beautiful stone bridge arches over waterfalls, rock gardens, a conifer border, and a growing number of bulbs and perennials that provide interest throughout the year; it offers a quiet place for contemplation and meditation. Neighboring the Garden of the Pine Wind is the Bonsai Garden. This garden is a showplace for bonsai.

Take a stroll over the serpentine-shaped Canopy Walkway, which rises two stories above the forest floor and gently curves through a woodland paradise. You’ll find showcased here a collection of heat-tolerant rhododendrons.

The Floating Cloud Bridge occupies one of the most beautiful, if hidden, ravines in the garden. The bridge, supported on six large boulders, seems to “float.” Landscaped with cloud-pruned white azaleas on the hillside, it offers a filtered view of Lake Hamilton through mature pines.

Be sure to visit the open-air amphitheater. Nestled in a natural depression surrounded by pines, oaks, and hickories, the amphitheater offers a restful and inspiring place to take in performances or simply soak in the beauty of a mature Southern forest.

It was Garvan’s wish that the gardens be used to educate and serve the people of Arkansas, providing them the joy and tranquility it had offered her. She noted the devastation of the environment that had taken place in her lifetime and wished to preserve a remnant of the twentieth century’s natural beauty for generations to come. Today, the 210-acre estate is the University of Arkansas botanical garden. Thank you, Verna Cook Garvan, for preserving this beauty for all!
'Sweet Sunset' is a 2015 All-America Selection Winner.
When using vegetables in combination with ornamentals, I am often disappointed by how they look by mid- to late summer. Over the last couple years I have been astonished by three All-America Selection vegetable winners in the Gardens for their performance in beauty as well as edibility. ‘Warrior’ green onion (2016 winner) and ‘Antares’ bulbous fennel (2017 winner) both took me totally by surprise. An onion from seed? Yes! A bulbous fennel in the heat of the South? Yes! The third, a ‘Sweet Sunset’ sweet pepper (2015 winner), produces more truly sweet, large peppers than any other pepper I have ever grown. All three edibles have been great performers in the ground, as well as in containers in full sun. Why am I writing about summer vegetables for the fall/winter edition of Cultivate? So you can order seed and get them sowed in time for spring and early summer planting!

Easy-to-grow green onion ‘Warrior’ progresses quickly from seed sown in February or March and planted out into the garden in April or May. For eating purposes, it will mature as early as 60 days and is good raw or cooked and perfect for grilling whole. Leave it alone and it becomes an onion of great beauty. The spiky blue leaves will grow to the size of your thumb, reach 16 to 22 inches tall, and remain attractive into the fall. They look great poking through lower growing flowers like vinca in the ground, and they fill the “thriller” role in a pot. As with most other onions, ‘Warrior’ performs best in full sun in average to dry soil.

Surprisingly heat-tolerant and suitable for the South, ‘Antares’ bulbous fennel’s bushy, medium green foliage reaches 18 to 24 inches tall. About 2 months after sowing, a pure white “bulb” measuring 4 to 5 inches across forms at the base of the leaves. It can be harvested and eaten raw, but roasting brings out its sweetness and mellows its licorice-like flavor. Left alone, the beautiful bulb will grow bigger, and though it will become too tough to eat, it will remain attractive into late summer. It can be direct sowed, but we have found it easy to transplant from seed tray to cell pack, and then into beds or even pots. ‘Antares’ fennel is a winner in so many ways: an edible bulb, beautiful feathery fronds, and graceful host to swallowtail butterfly caterpillars.

‘Sweet Sunset’ is a disease resistant banana-type pepper producing 7-inch fruits tapering down to a point from a 1.5-inch-wide shoulder. This vigorous, yet upright, compact grower will reach 2 feet tall and produce 15 to 20 peppers per plant with no staking required, even when grown in a pot. The fruits are ready to pick once they turn light yellow, but leave them alone and they’ll turn a warm golden yellow. When left a bit longer, they become deep red with extra sweetness and nutrition. They are great eaten fresh, cooked, or canned, and even freeze well. This colorful edible has been a welcome addition to our trial gardens.

I hope you will consider growing these edible ornamentals in your landscape.
IN THE

gardens

Knoxville

James Newburn
Assistant Director
1. Though they are never seen, the fairies and gnomes in the UT Gardens, Knoxville, certainly leave their mark. Apparently these fairies preferred a formal landscape plan for their estate.

2. These intriguing kokedama made wonderful decorative accents and prompted many comments at the UT Gardens Gala this year. Found hanging from trees and the tents, kokedama is a moss-covered soil ball out of which plants are grown. Herbs, leafy garden greens, alpine plants like sedums, interior plants, and many others are suitable for this unique form of displaying and growing plants.

3. Our second annual Roses and Rosé event was a huge success. Guests enjoyed heavy hors d’oeuvres, jazz music, and of course, a rosé wine tasting, all in the beautiful setting of the Beall Family Rose Garden.

4. One of our youngest visitors enjoys the beauty of the iris garden. We have a collection of most of the American Iris Society’s Dykes Medal Winners, the highest award for iris available, from 1912 to the present. It is located around the perimeter of the Labyrinth Garden, providing a lovely backdrop for this meditative garden feature.

5. The McIlwaine Friendship Pavilion and Outdoor Classroom was dedicated April 27. This beautiful new space designed by Sanders Pace Architecture will serve visitors and the campus community well. Pictured during the plaque unveiling are Sandra and Henry McIlwaine’s daughter and son-in-law Gwen and Curt Johnson with UTIA Chancellor Tim Cross and UT Gardens Director Susan Hamilton.

6. What a great evening everyone had at the 2018 UT Gardens Gala held in Knoxville. This year’s theme was “A Thyme to Grow” and featured edibles in the centerpieces, as auction items, and as party favors. Over 300 people attended this wonderful event that is our largest fundraiser of the year.

7. The last piece of our wetland was completed when a boardwalk spanning the width of the middle pond was installed. This new feature gives visitors—especially children—a dragonfly’s view of the wetland ecosystem.

8. An auction item of our 2018 Gardens Gala was a “Mixology 101” party where kitchen garden manager Holly Jones and education assistant Milly Burnett demonstrated using botanicals (herbs, flowers, and vegetables) in tasty cocktails for the winning bidder and seven friends.

9. Our rock garden has a collection of conifers, shrubs, and perennials that all perform well in a low moisture, poor soil environment. Pictured in the foreground is our native Tennessee coneflower (Echinacea tennesseensis).
Please join us in welcoming Shalena Durkot, our new garden coordinator! Shalena has quickly become an integral member of our team. She has taken part in an important rose trial, overseen the randomization and planting of a 500-variety daylily trial, worked closely with our summer intern, and much more.

Shalena, pictured above left, earned her bachelor’s degree in plant sciences and landscape systems from the University of Tennessee, Knoxville, where she was a student horticulturist in the UT Gardens, Knoxville. She most recently served as a horticulturist for the Oak Ridge, Tennessee, Recreation and Parks Department where she designed and maintained landscape beds; maintained greenways and green belt areas; and assisted with special events. Prior to that, Shalena was a landscape designer for a retail nursery where she offered consultation and design services, taught gardening workshops, spoke to area garden clubs, and assisted homeowners with plant selections.
1. Late October through early November is the prime time for viewing fall color at the UT Gardens, Jackson. A fall color walk must include the brilliant red Chinese pistache trees and the famous multi-trunked ginkgo located just north of the main parking area. Gardens are open daily from sunrise to sunset.

2. There’s nothing better than finding that perfect plant at a UT Gardens Plant Sale. Make plans to attend one of Jackson’s three seasonal plant sales in 2019. Spring Plant Sale—May 4, 2019; Summer Celebration Plant Sale—July 11, 2019; or the Fall Plant Sale—October 3, 2019.

3. Basil was the featured plant of 2018. The UT Gardens, Jackson, crew planted more than 50 varieties for a total of 600 basil plants! (That’s a lot of pesto!) Summer Celebration even featured a Basil Trail. Follow our Gardens on Facebook to see what Jason Reeves will cook up for next year’s garden spotlight.
Learn with Us

The UT Gardens—in Knoxville, Crossville, and Jackson—offers a number of ways to learn about the world around us. Join us for tours, lectures, workshops, plant sales, and special events suitable for all ages throughout the year.

KNOXVILLE
Plan now for the many classes, workshops, and events offered in the UT Gardens, Knoxville. All events require preregistration. Visit utgardens.tennessee.edu to learn more. Knoxville is located in the Eastern Time Zone, and event times are listed accordingly online.

CROSSVILLE
Classes and events are held at the UT Plateau AgResearch and Education Center in Crossville. Visit ag.tennessee.edu/plateaugardens regularly for an updated list of happenings, or email ccmgnews@gmail.com to receive email updates. Registration is required for all classes. You may register in person at the AgResearch and Education Center office, or by phone/email to Jennifer Burns at 931-484-0034, jburns35@utk.edu. Crossville is located in the Central Time Zone, and class times are listed accordingly online.

JACKSON
For more information regarding events, visit west.tennessee.edu or call 731-424-1643. Jackson is located in the Central Time Zone, and event times are listed accordingly online.

Learn with Us

The UT Gardens—in Knoxville, Crossville, and Jackson—offers a number of ways to learn about the world around us. Join us for tours, lectures, workshops, plant sales, and special events suitable for all ages throughout the year.

KNOXVILLE
Plan now for the many classes, workshops, and events offered in the UT Gardens, Knoxville. All events require preregistration. Visit utgardens.tennessee.edu to learn more. Knoxville is located in the Eastern Time Zone, and event times are listed accordingly online.

CROSSVILLE
Classes and events are held at the UT Plateau AgResearch and Education Center in Crossville. Visit ag.tennessee.edu/plateaugardens regularly for an updated list of happenings, or email ccmgnews@gmail.com to receive email updates. Registration is required for all classes. You may register in person at the AgResearch and Education Center office, or by phone/email to Jennifer Burns at 931-484-0034, jburns35@utk.edu. Crossville is located in the Central Time Zone, and class times are listed accordingly online.

JACKSON
For more information regarding events, visit west.tennessee.edu or call 731-424-1643. Jackson is located in the Central Time Zone, and event times are listed accordingly online.
Boxwood blight, a disease caused by the fungus *Calonectria pseudonaviculata*, was first found in Tennessee in 2014. Initial reports on boxwood blight in Tennessee were from garden centers or in landscape plantings where infected plants were introduced to the gardens. In the past year boxwood blight has been discovered in gardens where no plants were introduced. Boxwood blight can be found on container and landscape grown plants, as well as on greenery and wreaths used for Christmas decorations. All commonly used boxwood cultivars are thought to be susceptible to infection; although, they do vary in susceptibility. Dwarf cultivars such as *Buxus sempervirens* ‘Suffruticosa’ are particularly susceptible to damage.

The main symptoms of boxwood blight are leaf spots, twig lesions, and leaf drop. Large circular lesions are present on infected leaves. Where infection is severe, and few leaves remain, dark purple to black lesions are often visible on green twigs. Severe leaf drop may occur when conditions are favorable for infection (64-74 degrees F) and plants are wet from rainfall or irrigation. The fungus that causes boxwood blight produces rod-shaped spores in bundles in leaf spots and twig lesions. These spores are moved short distances via splashing rain and irrigation. As spores are “sticky,” they may be moved on clothing or tools. These spores are not blown long distances as are the spores of rusts or mildews.

*What to do if you suspect boxwood blight*

If possible, ship the whole plant (if small) to the UT Extension Soil, Plant and Pest Center for examination. Otherwise, send symptomatic branches with leaf spots and/or twig lesions in a plastic bag with a dry paper towel to absorb moisture.

Keep in mind that there are other diseases and insect pests that can cause leaf damage and branch dieback to boxwood. These include volutella blight, boxwood dieback, phytophthora root rot, leaf miners, and boxwood mite.

**BEST MANAGEMENT PRACTICES FOR BOXWOOD BLIGHT**

*Know the symptoms of boxwood blight.*

*Quarantine new boxwoods for two to four weeks before introducing into landscape plantings.*

*Bag infected plants and dispose of them in a landfill.*

*Fungicides work best as a preventative treatment.*

Fungicide sprays on slightly infected landscape plants may maintain health, but sprays may have to be applied at seven to fourteen days during the growing season indefinitely. Sprays should be coupled with monitoring. Take samples at least twice a month and have them inspected for blight.
BOOK REVIEW

Sugar Snaps and Strawberries
Andrea Bellamy

At first glance, Andrea Bellamy’s Sugar Snaps and Strawberries: Simple Solutions for Creating Your Own Small-Space Edible Garden (Portland: Timber Press, 2010), appears to be written for garden newbies. The first several chapters are on selecting a garden style, assessing and finding space, planning, and building—presumably for a brand-new garden. Excellent graphics and color photography by Jackie Connelly, and clear, practical, and seemingly “effortless” writing make for easy reading, seconding the notion. However, time and again one comes upon nuggets of pure gold: Ideas, techniques, and tips galore, ready for use in gardens new or old. Pay no attention to the “simple” in the subtitle; the author’s layered knowledge gives it the lie.

Here is all-purpose gardening information for everyone, in a book that combines two timely topics, garden edibles and small spaces, and Sugar Snaps will be especially helpful for lofters and apartment dwellers, downsizing homeowners with near-zero lot lines, and anyone who wants to add edibles to an established landscape. Who wouldn’t like to improve food quality and variety, forego tedious shopping, eat really and truly local, and save money on groceries—but where? Community gardens are only one of many options. How about an old canoe parked against the front fence (p. 46)? Balconies, shared backyards, gardens at work and at schools, and “guerrilla gardens” on abandoned or forgotten spaces are alive with possibilities.

There are few stones left unturned in the 10 chapters, 225 pages, 150 color photos (70 of them full-page), glossary, bibliography, and index. Content is enhanced by lots of set-apart text: For example, Container vs. In-Ground Gardening, A Dirty Dozen (store-bought foods that test high in pesticides); and Sheet Mulching in 9 Steps. Coverage is close to comprehensive. Chapters on “Keeping Plants Healthy,” with sections on watering, weeds, pests, insect control, and diseases; and “Making the Most of Limited Space,” covering succession planting, interplanting, vertical gardening, and winter gardening offer tempting ideas.

The last and longest chapter, “Edibles from A to Z,” presents a selection of fruits, herbs, and vegetables. There are sixty-five entries in all, twenty-seven designated Top Picks. All open with general information, including cultivars by name (Yay!), then nitty-gritty comments under headings Start (sowing), Grow (favorable conditions), Harvest, Tips, In Containers (dimensions needed for that edible), Problems (insects, slugs, diseases), and Popular Selections (other cultivars). One caveat: Bellamy lives and gardens in Vancouver, British Columbia, zone 8b. One may find different cultivars for our zone 6b-7a, but the plants described are suitable for East Tennessee . . . although I’ve tried and failed five times with Rhubarb.

The author’s hands-on experience shows throughout, and perhaps especially in this final chapter, as these samples illustrate: “Potatoes do well in large, tall containers such as garbage cans (drill plenty of holes in them for good air circulation)” and “Cauliflower is a diva, demanding that conditions be just so, or refusing to produce. And they are space hogs that take a long time to develop. Worth it? I don’t think so, especially in a small space . . .”

Sugar Snaps and Strawberries is worth it, though. It’s a book you may want to keep nearby. Check it out at your local public library and see what you think.
As gardeners, either in the professional setting of a public garden or in our own home garden, we rely on and appreciate the beauty and inspiration that living plants provide. Often though, that inspiration can lead to a desire to add creative objects that enhance and complement our garden settings. The result can be an integration that enriches our experience of both.

Whether it is to add whimsy, appeal to a new audience, provide a fresh experience for regular visitors, enhance educational goals, or showcase local artists, all three locations of the UT Gardens have incorporated art in a variety of ways.

At the UT Gardens, Jackson, Jason Reeves used the upcycling of found and recycled objects to initially garner media attention about the Gardens by, as he said, “doing something crazy to help get the word out that the Gardens even existed.” The result was hanging 853 neckties around the Gardens in an artistic manner. Other whimsical art installations that Jason has created in recent years include the use of old appliances, wine bottles, and bicycles as the materials for his displays.

Visitors to the UT Gardens, Jackson, have found inspiration from the displays there and created their own versions of what they see. I have seen several home gardens where, for instance, a wine bottle wall was created mimicking the fantastic large-scale version that Jason created. Also, the beautiful fall harvest exhibits he created in the past have inspired many gardeners to utilize pumpkins, gourds, and corn shocks in highly creative ways.
At the UT Gardens, Crossville, Nancy Christopherson says that the site has a strong focus on children, and artwork and structures are designed or chosen for those aged three to seven. A variety of concrete and metal garden statuary, interactive painted games, wood carvings, and items from nature enhance the Gardens experience for children. “Our goal is to provide artwork that encourages children to use a multisensory, interactive, and imaginative exploration of the KinderGarden,” she says.

At the UT Gardens, Knoxville, we strive to be available to all university disciplines as a source for student educational opportunities. Over the years, we have developed a close association with the UT School of Art. Jason Brown, associate professor of sculpture, has partnered with the Gardens to provide a “real-world” experience and setting for his metal sculpture students. With the Gardens acting as the client, his students have listened to our requirements including siting, size, themes, and safety concerns, and presented proposals for garden sculptures. After approval by the Gardens and Brown, they then move forward with construction and installation as part of their graded classwork. This arrangement becomes win-win, whereby the students gain experience and the Gardens gains wonderful pieces of art. All of the metal sculptures currently installed in the UT Gardens, Knoxville, are produced by students.

This year in Knoxville, we initiated a new program that we hope will become an annual event. Called Art in the Garden, the goal is to seek engagement with local amateur and professional artists, generate a new audience, and raise funds. This year’s theme was “Joyful Flight—A Hummingbird Exhibit.” Twenty-six artists agreed to participate, and each was given an approximately 4-foot plywood hummingbird silhouette to embellish in any medium. The completed pieces were installed throughout the Gardens during the summer and auctioned in September with proceeds benefiting the UT Gardens, Knoxville. The exhibit was supplemented with hummingbird fun facts printed on stylized flower cutouts, which added an educational component. We opened the exhibit as part of a First Friday community art celebration. Most of the crowd said it was their first visit to the Gardens.

Across the state, these artistic endeavors are also a great way to engage volunteers. Jason relied on the Madison County Tennessee Extension Master Gardeners and other community members to procure, remove the labels and glue, and wash more than 5,000 wine bottles needed for the bottle walls and trees that became such a unique element in the Jackson Gardens. Beth Morgan of the Cumberland County Tennessee Extension Master Gardeners was instrumental in designing and creating the KinderGarden in Crossville. Morgan also painted some very beautiful and educational elements there, including an alphabet spindle structure and a painting of the different tracks animals leave behind. In Knoxville, Sherby Jones was the talent behind the impressive mural in the Kitchen Garden.

Adding art to the garden does present some challenges. Works must be installed and maintained and safety concerns addressed. But, the overall enhancement to the UT Gardens sites across the state is without question worth it. Combining the beauty of nature with the beauty of art enhances both and is enjoyed by all.
Jackson

Ginger Rowsey, UTIA Marketing & Communications

Conventional wisdom advises us to not set the bar too high and aim for realistic goals. Don’t tell that to Marie Kyper.

When Kyper decided to join the Tennessee Extension Master Gardener Program in 2017, she set an ambitious goal of 100 volunteer hours in her first year, more than double the amount required to graduate. However, as of press time, she has already accumulated nearly 300 volunteer hours, the most of any volunteer at the UT Gardens, Jackson, this year.

“This is therapy for me,” Kyper concedes. “I needed something to clear my mind and get me out of the house. It’s been very beneficial.”

Kyper, who is recently retired, admits she wasn’t always so passionate about gardening. She credits her former employer, the late Peter Howard of Humboldt Crown Winery, for inspiring her to learn more about the plant world. After a few Master Gardener classes, she was hooked.

Now when she’s not volunteering at the UT Gardens, she’s working in her own garden. She even harvested her first crop of tomatoes this summer. Her enthusiasm for gardening and volunteering is now inspiring others. “I’ve met so many good people and learned so much,” says Kyper.
**Knoxville**

Beth Willis, UT Gardens, Knoxville, Membership & Volunteer Coordinator

On July 20 the UT Gardens, Knoxville, was happy to host the inaugural crew of volunteers taking part in our Adopt A Spot program at a pizza and ice cream social. Staff horticulturists Alice Kimbrell and Alex Smith—along with other UT Gardens, Knoxville, staff—were on hand to celebrate these dedicated volunteers who have chosen to support the Gardens in this special way.

The new Adopt A Spot program is a way to provide needed flexibility for volunteers while allowing them to take ownership of a particular area within the Gardens. Interested volunteers work closely with our staff horticulturists to identify a “spot” to “adopt” and determine the maintenance goals for that area. Volunteers commit to working in the area regularly, and they are free to come on the days and times that are convenient for them. Signs placed in each area recognize the individuals who have taken responsibility for that spot. These volunteers have proved to be a much-needed supplement to our small group of staff horticulturists and to our volunteer program as a whole.

**Crossville**

Carol Burdett, Tennessee Extension Master Gardener, Cumberland County

When the tenderest new plants need patient care, we have a fellow at the UT Gardens, Crossville, who is always their protector, their friend, and the one who keeps the weeds at bay and the paths mulched. Tennessee Extension Master Gardener Ernie Wood can always be found hauling prunings and buckets of pulled weeds to their final resting place. No plant on our several acres of horticultural projects is likely to die from lack of water in driest weather or to go unnoticed or uncared for during the seasons of bugs and fungi.

Ernie supports the Gardens in so many different ways. He heads up the spring plant sale. He begins watering plants months before the sale and is still watering leftover plants weeks later. He is there almost every day including weekends. He often gives impromptu tours. He co-chairs the Gardens, serves on the umbrella committee, works the Fall Gardeners’ Festival, and probably helps with many Gardens tasks we don’t even know about. He volunteers at field days at the UT Plateau AgResearch and Education Center. He used to lead the community gardens at Roane State. In his quiet way, Ernie is always ready to educate visitors on the subject of butterflies and to make visitors welcome. Hats off to you Ernie, you’re one in a million!
S
ure, plants with evergreen foliage add year-round backdrop and stability to the landscape, and true that long blooming plants that offer flowers spanning spring, summer, and fall are appreciated, yet the most interesting gardens are those that speak to you of the seasons.

The fall garden has a special ambience. The light is slanting and golden, backlighting the mature foliage and ripening seed heads of spent summer flowers. Autumn even has its own sounds, as summer bird songs give way to the rasping of crickets, and the rustling of drying leaves lifting and falling in the breeze.

Insects are still humming, busily foraging for pollen and nectar, a few to fuel their migration, others building up reserves to survive winter. The fields and roadsides revive with a new palette of flowers for the season and there’s no reason your garden shouldn’t do the same. It will require planning because plants that wait until autumn for their big show can be hard to find.

It’s the shopper’s fault, not the retailer’s! Retailers learned that no matter how beautiful, durable, or easily grown the plants might be, they simply did not sell well enough to justify marketing space. The average spring and summer shopper walks right past them to grab a brightly flowered offering that will be finished blooming in a couple of weeks, so yes, you may have to hunt down these late bloomers, but rest assured that any extra efforts made to find them for your garden will provide a big payoff!

Several species of salvia have outstanding fall displays, but a hybrid called ‘Waverly’ is a lesser-known cultivar that has proven its durability in UT Gardens, Jackson. This tall, somewhat wiry plant thrives on benign neglect, dependably blooming from late summer until frost, festooned with butterflies and other pollinators.

Asters are also beloved by our winged garden friends, and while there are dizzying numbers of species and selections, a few of them have grown popular enough to show up in the green industry with some regularity. ‘Raydon’s Favorite’ and ‘October Skies’ are selections of our native aromatic aster, Aster oblongifolius, that should be sought out for their billowing pillow of blue to violet flowers in late fall.

Japanese anemones resemble delicate poppies with tall bare stems tipped with blooms of pink or white, and make a good cut flower. They like to peg out new clumps from the original plant and become a colony, so place accordingly or divide and share.

A diminutive plant that is not common in the trade, yet deserves more widespread use, is hardy cyclamen, not to be confused with the houseplant types. There are actually a number of hardy species, but the one most easily found in specialty nurseries or catalogs is Cyclamen hederifolium. These little beauties only look delicate with dramatically winged flowers that dangle over the evergreen foliage like a cloud of small butterflies. The foliage alone would be worth growing the plant, with exquisitely patterned foliage reminiscent of fancy leaved begonias. Don’t be alarmed when it disappears once weather warms; it will reappear in the fall from the underground tubers, as long as the soil remains well drained even through winter months. A woodland setting is ideal, as it likes shade and does not mind competing with tree roots.

ABOVE: Be sure to put a marker by these late-blooming asters so they aren’t mistaken for a garden weed!
ABOVE: The species name of this hardy cyclamen is derived from its resemblance to English ivy.

BELOW LEFT: The daisy type heirloom chrysanthemums make satisfying cut flowers. Here ‘Clara Curtis’ mingles with ‘Fireworks’ goldenrod, another great one for floral use.

BELOW: Japanese anemones may look delicate but can persist but colonize a partly shaded well-drained setting.
PUTTING NATURE FIRST

Going from the Outside In

Mark Fly, Director, Human Dimensions Research Lab, and Professor, Department of Forestry, Wildlife and Fisheries
We are “of nature” and “from nature.” When we eat a tomato from the garden, the atoms and molecules from the air, water, and soil become part of our physical being. When we smell a flower, we process nature through our bodies and brain. We are intricately connected to and inseparable from nature, even as life and modern conveniences arrange our lives otherwise. This has been revealed to me in my own life story.

I grew up on a 320-acre farm on the Duck River in Maury County near Columbia, Tennessee. As the youngest sibling, my Dad and our family became sharecroppers on my grandfather’s farm, which he had purchased in 1919. We lived in an old four-room farmhouse with large, ax-hewed timbers to support it. We had no running water and no heat in the children’s bedroom. Our chores were to feed the chickens, bring in firewood, and draw water from the well for cooking and bathing. When I was twelve, we moved to the village of Sawdust with a bathroom, my own bedroom, and a highway to town. The old farmhouse was left to weather with the elements. Over the years the poorly built side rooms on the back rotted and fell in, and eventually the front porch with the view over the river valley collapsed. I moved away to college, raised a family, and taught at various colleges and universities. The farm became a place to visit occasionally and hike in the woods among the big trees and along the river bluff.

My dad passed in 1994 and the cattle were sold. Life had its ups and downs and time passed swiftly with my mom holding the family together. On her birthday on May 11, 2011, my ninety-four-year-old mom said she had lived about long enough. On October 15, in the early morn, she passed in her bed with my arms wrapped tightly around her. Two weeks later, as I spread Mom’s ashes on the garden next to the old farmhouse, I felt a strong sense of renewed attachment to this place of my childhood.

The next weekend I returned with axes and saws in hand and began chopping and sawing my way through the trees and underbrush that had all but hidden the old house. My brother asked why I did not use a chainsaw. I said it was not about the chainsaw, but about using my own hands to liberate the home my mother had nurtured so well. This process of renewal of this physical place and connecting with nature was soothing my pain and healing my grief. I was finally putting into practice my beliefs about the restorative power of nature. Over the days, months, and years I have continued to nurture this land of my ancestors and it has nurtured my soul many times more.

One way to incorporate more nature into our lives, as I discovered at the farm, is to reverse how we think about our relationship to the built environment and nature. As an environmental psychologist, I study the interrelationship between people and nature. In the modern world, unlike our distant ancestors, we live more and more inside, and we definitely go from the inside out. I decided at the farm to go from the outside in, so I view the outdoors, including my garden, as my living room followed by the open porch that goes across the front of the house. Next is the screened in porch with the sleeping loft and finally, the inside with four walls and a ceiling. What I discovered was that by focusing on the outside as my living space, I have actually never made it inside further than the screened in porch, even in the dead of winter at 22 degrees. In fact, if sleeping in the loft of the screen porch is sleeping outside, I slept outside 33 percent of the time in 2016 (including weekends and holidays). As 2016 came to a close, I realized I had not been sick the whole year—no colds, no sinus infections, nothing, Forest therapy research is now showing exposure to phytoncides, the airborne chemicals that plants emit, particularly trees, boosts the immune system and increases the natural killer (NK) cells in the body. They are the first line of defense against cancer and virus-infected cells. Engaging with nature restores mental functioning; lowers blood pressure, heart rate, and stress hormones; and reduces depression and anxiety. It certainly worked for me.

This may be a good time to think about your garden or woodlot as your living room and see where your thoughts about your life and its relationship to space take you. Feel free to share your own experiences with me at markfly@utk.edu. Enjoy!
Randolph says to focus on “foliage first” for containers. Blend colorful large leaves and fine-textured foliage and then add flowering plants. When annuals’ blooms fade or lull, the interest continues nonstop.
Few Tennessee gardening legends need less of an introduction than Rita Randolph. Passionate gardeners have heard her talk at local, regional, and national venues. Others have followed her columns, and quite a few of us have made the trek to Jackson, Tennessee, to shop among the wonderful plants at her own legendary nursery and retail operation, Randolph’s Nursery.

Randolph was a natural for the gardening world. Her father operated a landscaping business, and a fascinating sidenote is that during World War II, he collaborated with Frank Knight from Kew Garden to identify fast-growing vines that could help camouflage military installations. Returning home, he built Quonset huts to grow nursery stock while her mother helped pay the bills through sales of annuals and perennials. By her teens, Randolph had her own greenhouse, a lavish affair of beautiful and exotic plants all grown for her own satisfaction. Then her mother intervened, informing Randolph that to continue, she had to make her greenhouse profitable. Propagation entered the picture, and Randolph says she found it fun. From there, her life in horticulture took root and flourished. In fact, an autobiography she penned in 2012 carried the title, A History of Horticulture. Her many fans bought all copies.

Back in the 1970s when houseplants were so in vogue they spilled from people’s windowsills, Randolph was supplementing her own income by making macramé plant hangers. She met the man she would marry, Hamp McCall, at a record shop that sold them. Together, they came to operate the family greenhouse for at least thirty-five years, while raising two kids. Hamp was the anchor of the business, enabling Randolph to travel as a speaker and learn from horticulturists all over the country. Meanwhile, her writing continued. Recognizing her brilliance in container gardening, Fine Gardening magazine invited her to write their once-a-year special Container Garden Edition. Her Four Seasons of Containers sold out.

A promising new plant at the nursery was a golden fern found by then-employee Jason Reeves (now also highly known in Tennessee horticulture). Reeves came across several gold ferns while visiting a nursery near Knoxville and purchased them with Rita in mind. She established the fern that was useful for its compact habit and splashing chartreuse color. Allan Armitage from the University of Georgia saw those special qualities and helped her introduce the plant, even naming the fern Rita’s Gold in her honor.

Today, retirement is just ahead. After she and McCall closed Randolph’s Nursery five years ago, Randolph continued to speak, work with Master Gardeners, and keep her hand in commercial gardening at Morris Nursery. Now she plans to travel more with her husband and devote herself to writing and consulting. While she has not determined all the articles and books, we are confident they will bring readers joy, just as Randolph herself has with her wisdom and love of plants.

Randolph described writing her autobiography as a wonderful period in her career, with plans for more books ahead following retirement.
Cultivate is pleased the Herb Society of Nashville has joined us as a partner in our Edibles food column. Nancy Coleman, the society’s community outreach chair, shared this wonderful quinoa salad recipe and says, “As many of my family members and guests are embracing a healthy eating style, I frequently search for recipes that are tasty and healthy. This delicious quinoa salad is a terrific addition to my fall dining repertoire or Thanksgiving menu. It offers traditional grains plus lower carbs in a vegetarian option. I first sampled it at an Herb Society lunch gathering, prepared by a member. Now relatives and friends are so pleased to have such savory fare offered at my table.”

**TIPS**

The flat-leaf parsley, arugula, and kale used for this salad will all grow well in your fall garden. Arugula thrives in cooler temperatures. Edible kale is a cool-season crop, and flat-leaf parsley is a biennial herb that can live for several years and will thrive up to frost. When grown in a protected area or a microclimate it likes, the parsley can provide you with cuttings even up to Christmas. Consider growing this herb in a pot, as well. Bring it inside in the fall and place in a sunny area. When shielded from air vents, the parsley will provide fresh greens throughout the winter then be ready to be placed outside when spring arrives.

**NOTES**

The sweet potatoes are the jewels in this salad of green, in color, taste, and texture. If you enjoy them, use the full 2 pounds or even more. Salted and peppered, they are great for snacking if you find you have prepared more than you need.

Toast the quinoa with care. Begin on medium heat. That level of heat or slightly higher will toast more uniformly than at too high a setting. Depending upon the pan you use, toasting may require more than 2 minutes.

Olive oil quality can make a big difference in taste. We tested using a first-pressed extra virgin olive oil and the result was sublime.

Recipe courtesy of Herb Society of Nashville member Susan Lyons. Originally published in November 2012 by *Food & Wine*.

---

**QUINOA SALAD WITH SWEET POTATOES AND APPLES**

- 1/2 cup extra virgin olive oil
- 1 1/2 cups quinoa
- Salt and freshly ground pepper
- 1 1/2 to 2 pounds of sweet potatoes, peeled and cut into 3/4-inch dice
- 1/4 cup apple cider vinegar
- 2 large Granny Smith apples, cut into 1/2-inch dice
- 1/2 cup chopped flat-leaf parsley
- 1/2 medium red onion, thinly sliced
- 8 packed cups baby greens, such as arugula or kale (about 6 ounces)

Preheat the oven to 400 degrees F. In a large saucepan, heat 1 tablespoon of the olive oil. Add the quinoa and toast over moderate heat, stirring, for 2 minutes. Add 3 cups of water, season with salt, and bring to a boil. Cover and simmer the quinoa for 16 minutes. Remove from the heat and let stand for 10 minutes. Fluff the quinoa, spread it out on a baking sheet, and refrigerate until it is chilled, about 20 minutes.

Meanwhile, on a baking sheet, toss the sweet potatoes with 1 tablespoon of the olive oil and season with salt and pepper. Roast for about 25 minutes, stirring once, until golden and softened. Let cool.

In a large bowl, whisk the remaining 6 tablespoons of olive oil with the vinegar; season with salt and pepper. Add the quinoa, sweet potatoes, apples, parsley, onion, and greens, and toss well. Serve right away.

*Make ahead:* The quinoa and sweet potatoes can be refrigerated for up to 2 days.
How do you get funds to build the invisible yet necessary things?

I t’s not something you think about until you need it. You don’t notice it unless it’s an eyesore. No one talks about it. So how do you get funds to build the invisible yet necessary things?

At the UT Gardens, Crossville, it was a combination of a group of passionate and ingenuitive Tennessee Extension Master Gardeners and volunteers and one very generous and anonymous donor who are making restroom facilities near the outdoor classroom and pavilion a reality.

Nearly gone are the days of the bright blue portable facilities that scream construction site intruding on weddings or other events held amid the beauty of the UT Gardens, Crossville. There is no good way to aesthetically integrate temporary bathroom facilities into the wedding décor. And yet, who wants to donate for something as innocuous and unseen as restroom facilities?

Walt Hitch, director of the UT Plateau AgResearch and Education Center where the Gardens are located, knows the challenge and necessity of providing adequate facilities for the public gardens. Which is why he was pleased when volunteers and donors stepped up to fund the project.

The three-stall restroom facilities will mirror the aesthetic of the pavilion with Crab Orchard fieldstone and feature the same roof and gable. And it will be built almost entirely from donations.

“More than the money, it’s the passion they have for completing something like this,” Hitch says of the Tennessee Extension Master Gardeners and volunteers who maintain the grounds and raised a portion of the funds to build the facilities. “That passion to do something within their reach is just as important as the large gifts. It takes all of it.”

While the generous donation from an anonymous donor provided the financial strength to break ground, volunteers did their part, giving of time and talents. One gentleman prepared and sold nearly 2,500 tamales.

“The facilities will be there to serve the couple on a Sunday stroll through the Gardens as well as the number of events we house in the outdoor classroom,” Hitch said.

Each year area kindergarteners are invited to the KinderGarden and outdoor classroom. This year will be the first time adequate permanent facilities will be available.

UT will break ground as soon as engineering plans are finalized and Hitch hopes the facility will be completed as early as 2019.

If you are interested in supporting the UT Gardens, please visit together.tennessee.edu/utgardens to make your gift today.
In a quickly expanding digital world many of us find gardening inspiration from things we see online in videos and photographs. However, the real world still exists and there are thousands of great gardens you can draw inspiration from in person. Garden travel and visiting gardens can be important stepping stones for beginning gardeners looking to seek knowledge. Additionally, experienced gardeners can fan the flames of their gardening passion by seeking out new ideas and inspiration.

Many of the plant combinations in all locations of the UT Gardens are very deliberate and based on experience working with plants over time. Others are a result of happy accidents where unexpected beauty appears where it was not necessarily planned. However, many plant combinations and garden elements are a direct result of something that was seen while visiting another garden.

So how do you get started if you want your 2019 to include more gardens? First, seek out like-minded people to share in the fun. This can happen online, in local gardening clubs, through state master gardening programs, or with family or neighbors. For most of us, gardens are more fun when the inspiration is shared with others.

The Mid-South and the surrounding area holds a lot of opportunities to see great gardens. Of course, the UT Gardens has three locations across the state which are designed specifically to educate visitors about all kinds of gardening. The Gardens are ever-changing and visits in different seasons can offer different perspectives.

Joining regional and national plant enthusiast groups can also be a wonderful conduit for experiencing new gardens. Groups like the Perennial Plant Association, the American Conifer Society, and many others often offer opportunities for their members to travel to see other gardens. They are also a great source of information on the kinds of plants you find most appealing. Often, membership comes with access to private gardens you would not necessarily otherwise get a chance to visit.

Making deliberate trips that are focused on seeing great gardens seems to be a trend for gardeners. In fact, the UT Gardens has organized successful gardening trips and excursions over the last year and has more in the works. Additionally, there are hundreds of public gardens across the US, many of which are only a short drive away. I also encourage you to look for open garden lectures that take place across the region; pairing an informational gardening talk with a garden visit can be a great combination. Many public gardens, including UT Gardens, have speakers visit often.

The new year is always a time of renewal and resolutions. This year jump on the bandwagon of seeing and seeking inspiration in person. Check the UT Gardens calendar for upcoming events and seek out other gardens regionally to explore and gain inspiration.
LAST LOOK

KEEP OUR GARDENS GROWING

Because of you, our State Botanical Garden continues to grow in so many ways. From educational classes, to research programs, to providing a place of respite in nature, our UT Gardens in Knoxville, Jackson, and Crossville create a wealth of benefits for our state.

Scenes like this one in the UT Gardens, Crossville, are possible in part because of your support. Gardens memberships help provide funding for each Garden. If you missed this year’s membership drive, you can still become a member at tiny.utk.edu/utgmember.